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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,336	08/31/2000	Kenichi Takekawa	196124US2	4688

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EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 04/08/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

TT.

Office Action Summary

Application No.

09/653,336

Applicant(s)

TAKEKAWA ET AL.

Examiner

Leonid Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Drawings

1. The corrected drawing was received and approved on 03-17-03. This drawing is 7A.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-9, 11-14 and 16-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Blue et al. (US Patent No. 5,196,835) in view of Marcke (US Patent No. 6,215,116 B1).

As to claims 1-2, 6-7, 11-12 and 16-17 Blue et al. teaches about a coordinate inputting/detecting apparatus, in which a designated device configured to designate a position in at least substantially flat two-dimensional coordinate inputting/detecting area of the coordinate inputting/detecting apparatus is judged as located in predetermined range of coordinate area when an optical detection signal of an optical unit, configured optically detect the designated device inserted into the predetermined range of the coordinate inputting/detecting area, exceeds a first threshold value, and in which whether or not the designating device has been inserted into the predetermined range of coordinate inputting/detecting area is judged and coordinates of a position in the coordinate inputting/detecting area, designated by the designated device inserted in the predetermined range of the coordinate inputting/detecting area, are recognized in accordance with the optical detection signal of the optical unit (See Fig. 1-3, items 10, 20,22, in description See Col. 2, lines 6-12, Col. 4, Lines 55-68, Col. 5, Lines 1-25 and Col. 6, Lines 42-

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48); wherein the optical detecting means includes plural optical elements (See Fig. 1, items photodetector, lens, in description See Col. 5, Lines 6-8).

Blue et al. does not teach about a second threshold value used in recognizing the coordinates of the position in the coordinate inputting/detecting area, designated by the designating device inserted in the predetermined range of the coordinate inputting/detecting area, is set to be higher than the first threshold value used in judging if the designating device has been inserted into the predetermined range of the of the coordinate inputting/detecting area, wherein the first and second thresholds are calculated based on detections by the optical elements in accordance with a distance from the designating device to the optical element, and wherein the first threshold is calculated based on detection of a farthest of the optical elements from designating device.

Marcke shows in "Continuous threshold adjustable proximity detecting device" how to adjust second threshold value grater than the first threshold level (See Fig.6, items 303,310,311,312, in description See Col. 1, Lines 62-67, Col. 2, Lines 1-4 and Col.10, Lines 57-68, Col. 11, Lines 1-10) and teaches that power received by the receiver is inversely proportional forth power of the distance between the object and the emitter /receiver (See Col. 1, Lines 44-52). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the second threshold and power dependence with a distance shown by Marcke in Blue et al. apparatus and set up the first and second thresholds in accordance with distance and calculate first threshold on detection of farthest distance in order to increase range and reliability of device

As to claims 3-4, 8-9, 13-14 and 18-19 Blue et al. teaches about a distance judging device configured to determine a distance between designated device inserted into the predetermined range of the coordinate inputting/detecting area and the optical unit (See Fig. 1, items 10, 20, 22, in description See Col. Col.6, Lines 42-48); wherein the optical detecting means includes plural optical elements (See Fig. 1, items photodetector, lens, in description See Col. 5, Lines 6-8).

Blue et al. does not teach about a second threshold value prescribing device configured to prescribe, according to a result of the judgment by the distance judging device as to the distance between the designating device inserted into the predetermined range of the coordinate inputting/detecting area and the optical unit, the first threshold value, such that the first threshold value is decreased as distance between the designated device inserted into the predetermined range of the coordinate inputting/detecting area and the optical unit is increased, and prescribes the first threshold value such that if the designated device is located at a farthest point from the optical unit, wherein the first and second thresholds are calculated based on detections by the optical elements in accordance with a distance from the designating device to the optical element, and wherein the first threshold is calculated based on detection of a farthest of the optical elements from designating device.

Marcke teaches that the amplitude for amplified electrical signals and means for increasing the energy levels depend on distance between emitter/receiver an object, and they could be increased or decreased depending on that distance and teaches that power received by the receiver is inversely proportional forth power of the distance between the object and the emitter /receiver (See Col. 1, Lines 44-52). Therefore, it would have been obvious to one having

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ordinary skill in the art at the time of the invention to use this power dependence with a distance which is equivalent to changing threshold value depending on distance (also prescribe the threshold value such that if the designated device is located at a farthest point from the emitter/receiver), as shown by Marcke in Blue et al. apparatus and set up the first and second thresholds in accordance with distance and calculate first threshold on detection of farthest distance in order to increase range and reliability of device

3. Claims 5, 10, 15 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Blue et al. and Marcke as aforementioned to claim 3 above and in view Fumihiko et al. (JP No.09319501 A).

Blue et al. and Marcke do not teach about first and second optical units, wherein the second threshold value prescribing device prescribes the first threshold value for each of the first and second optical units. Fumihiko et al. shows two optical units installed in adjacent corners (See Drawing 1, items 1-3, k1, k2 and Detailed description, 0007). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to use first and second optical units, as shown by Marcke in Blue et al. device to further increase range and reliability of device.

Response to Amendment

4. Applicant's arguments filed 03-17-03 have been fully considered but they are not persuasive.

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In reply on page 10 5th paragraph the Applicant stated that each of independent claims is amended to clarify features recited therein. Amendments to all independent claims have been fully considered and rejected by the prior art of the record (See above mentioned rejection).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

The Kato et al. (US Patent No. 5,999,185) reference discloses the dependence the first and second threshold from a distance.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

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April 2, 2003



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